

ABSTRACT

A method for forming a diffractive lens includes forming an etch stop layer on a first surface of a silicon substrate, forming a diffractive optical element above the etch stop layer, forming a planarization layer covering the diffractive optical element, planarizing the planarization layer, forming a bonding layer on the planarization layer, bonding a transparent substrate on the bonding layer, and etching a second surface of the silicon substrate to the etch stop layer to remove a portion of the silicon substrate opposite the diffractive optical element, wherein the remaining portion of the silicon substrate forms a bonding ring.